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EXAMINER	
CULLEN, SEAN P	

ART UNIT	PAPER NUMBER
1795	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

Office Action Summary	Application No.	Applicant(s)	
	10/579,551	VIVIEN ET AL.	
	Examiner	Art Unit	
	Sean P. Cullen	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-2, 4-8, 10 and 17-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Tribioli et al. (U.S. 5,506,065) in view of Charlot et al. (EP 0307292, see machine translation), Leben et al. (U.S. 4,752,542) and Guy (U.S. 3,394,034).

Regarding claim 1, Tribioli et al. discloses an electrical cell (1, see electrolyte-activated battery, abstract) for the propulsion of a device in an aquatic medium (abstract), wherein comprises at least in a sealed body (2):

- a chamber (3) comprising an auxiliary electrical cell (29) and
- a command and control module (199) for the electrical propulsion cell (see electrolyte-activated battery, abstract);
- a chamber (3) comprising a main electrical cell (7) of the electrochemical type (see electrochemical cell, C3/L1-3),
- said chamber (3) being provided with members (9) for the controlled admission and the regulation of a flow of water from the aquatic medium into said second chamber (C3/L12-17),
- which forms a reservoir (8), in order to form, after the command to admit water from the aquatic medium, an electrolyte (E) for activating said main electrical cell (C3/L1-3);

- a module (Fig. 2) for triggering the admission by suction of water from the aquatic medium and the discharge by escape of effluents resulting from the chemical reaction of the main cell into the aquatic medium (C3/L25-32),
- from an admission valve (16) and an escape valve (17), respectively,
- said command and control module (199) of the electrical propulsion cell permitting the activation of said auxiliary electrical cell (29) in order to generate electrical energy temporarily during a stage of launching said movable device in an aquatic medium (C3/L40-42), and
- the triggering of the admission by suction of water from the aquatic medium (C8/L21-31) and the discharge by escape of effluents in order to produce electrical energy from said main electrical cell (7) during a cruise phase (C8/L57-C9/L8) to separate the auxiliary cell and command and control module from the reservoir (8) to protect them from the electrolyte (E).

Tribioli et al. does not explicitly disclose:

- a first chamber
- a second chamber

Charlot et al. discloses an electrical propulsion cell (3) housed in a sealed cell body (1) comprised of a first and second chamber (Fig. 1) with said first chamber housing an auxiliary cell (11) and command and control module (15) to separate the auxiliary cell from the activation electrolyte (P3/L45-51) to prevent degradation of the auxiliary cell from the electrolyte (P3/L45-51). Tribioli et al. and Charlot et al. are analogous art because they are directed to sealed cell bodies contain main and auxiliary electrical cells used for the propulsion of the said sealed cell

body. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make sealed cell body of Tribioli et al. using the first and second chamber of Charlot et al. to separate the auxiliary cell from the activation electrolyte to prevent degradation of the auxiliary cell from the electrolyte.

Modified Tribioli et al. does not explicitly disclose:

- a third chamber

Leben et al. discloses a third chamber (32) housing a module for triggering the admission by suction of water from the aquatic medium and the discharge by escape of effluents (C3/L7-10) from an admission valve (4) and escape valve (9) to allow for removal of used electrolyte while maintaining the operation of the cell (C3/L46-59) to allow the electrolyte to be replenished during operation of the cell to provide a higher output from the battery (P3/L46-69). Tribioli et al. and Leben et al. are analogous art because they are directed to sea water batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make sealed cell body of modified Tribioli et al. using the third chamber of Leben et al. to allow for the removal of used electrolyte while maintaining the operation of the cell to allow the electrolyte to be replenished during operation of the cell to provide a higher output from the battery.

Modified Tribioli et al. does not explicitly disclose:

- wherein the auxiliary electrical cell is configured to supply electrical energy to an engine for the propulsion of the movable device and all members of the electrical cell during the stage of launching

Guy discloses a device (abstract) wherein the auxiliary electrical cell (67) is configured to supply electrical energy (Fig. 9) to an engine (see electric motor, C4/L17-36) for the propulsion of the movable device and all members of the electrical cell during the stage of launching (C4/L17-36) to allow the device to function instantaneously upon immersion in water (C4/L1`7-36). Tribioli et al. and Guy are analogous art because they are directed to device using sea water batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the sealed cell body of modified Tribioli et al. using the configuration of Guy to allow the device to function instantaneously upon immersion in water.

Regarding claim 2, modified Tribioli et al. discloses all claim limitations set forth above as applied to claim 1 and further discloses an electrical cell:

- wherein said auxiliary (29) and main electrical cells (7) are controlled sequentially by said command and control module (199, C3/L40-42) of the electrical propulsion cell (see electrolyte-activated battery, abstract) and
- are connected respectively to a main and secondary electrical energy distribution network (dotted lines in Fig. 1).

Regarding claim 4, modified Tribioli et al. discloses all claim limitations set forth above and further discloses an electrical cell:

- wherein said members (9) for the controlled admission and the regulation of a flow of water from the aquatic medium (C3/L12-17) into said second chamber comprise at least:
- a motor-driven pump unit (10, C3/L40-42),

- a suction nozzle (24) of said pump unit (10) is connected to said admission valve (16), and
- an outlet nozzle (30) of said pump unit delivers the water sucked in from the aquatic medium directly into said second chamber forming a reservoir (8, C3/L46-62),
- in order to form said activation electrolyte (E) and to immerse said main electrical cell (7) in the activation electrolyte (C3/L1-3);
- a thermostatic valve (12) connected to said main electrical cell (7, Fig. 1),
- said thermostatic valve (12) regulating the admission of said activation electrolyte into said main cell in order to trigger the activation of said main electrical cell by electrochemical reaction (C3/L46-62); and
- a device (13) for the circulation of the activation electrolyte and the separation of the effluents (C5/L29-39),
- said device (13) for circulation of the electrolyte (E) comprising an inlet nozzle (45) connected to the internal cavity of said main electrical cell (7, C5/L29-39),
- containing the activation electrolyte (E), a first outlet nozzle (14) connected in the vicinity of the suction nozzle (24) of the motor-driven pump (10) and
- a second effluent outlet nozzle (15) connected to said discharge valve (17, Fig. 1).
- said escape valve (17) located in said third chamber (19, Fig. 2).

Regarding claim 5, modified Tribioli et al. discloses all claim limitations set forth above as applied to claim 4 and further discloses an electrical cell:

- wherein said second effluent nozzle (15) of said device (13) for circulation of the electrolyte (E) is connected to said escape valve (17) located in said third chamber by means of a mode valve (18) which permits the orientation,
- in a first position (see open position, C6/L32-31), of the effluents towards the escape valve (17) when the main electrical cell (7) is started up during the launch phase (C8/L21-31), and,
- respectively, in a second position (see Fig. 5 position), of the activation electrolyte (E) towards the suction nozzle (24) of the motor-driven pump (10), in order to generate closed-loop circulation of the activation electrolyte in the main electrical cell (7) during the cruise phase (C8/L57-C9/L8).

Regarding claim 6, modified Tribioli et al. discloses all claim limitations set forth above and further discloses an electrical cell:

- wherein said thermostatic valve (12) is formed by a three-way valve (C3/L50) receiving:
- a direct flow (see stream of hot electrolyte, C3/L46-49) of activation electrolyte drawn from said second chamber forming a reservoir (8), and
- a derivative flow (see a stream of electrolyte E cooled by heat exchanger, C3/L46-49) of activation electrolyte passing by way of a heat exchanger (11),
- the derivative flow being maintained at a substantially constant temperature (see setting as required the temperature of electrolyte E supplied to the electrochemical cell, C11/L4-22) by said heat exchanger (11), said thermostatic valve (12) delivering,

- from said direct flow (C3/L46-49) and said derivative flow (C3/L46-49) at a substantially constant temperature acting as a reference temperature, a flow of thermostatically- controlled activation electrolyte at a substantially constant temperature (C11/L4-22) to the internal cavity of said main electrical cell (7).

Regarding claim 7, modified Tribioli et al. discloses all claim limitations set forth above and further discloses an electrical cell:

- wherein said main electrical cell (7) of the electrochemical type is an AgO-A1 cell (C2/L61-67).

Regarding claim 8, modified Tribioli et al. discloses all claim limitations set forth above and further discloses an electrical cell:

- wherein said main electrical cell (7) of the electrochemical type (see electrochemical cell, C3/L1-3) is formed by:
- an electrochemical block (7) constituted by a stack of AgO-A1 electrochemical couples (C2/L61-67) located in a cavity of a sealed module (Fig. 1) connected to said thermostatic valve (12) and to said device for the circulation of the electrolyte (13);
- a reserve of anhydrous sodium hydroxide (A, C2/L61-67), said electrochemical block (7) and said reserve of anhydrous sodium hydroxide (A) being located in said second chamber forming a reservoir (8, Fig. 1).

Regarding claim 10, modified Tribioli et al. discloses all claim limitations set forth above and further discloses an electrical cell:

- a front collar (top of Fig. 1);

- a front end (6) of the main electrical cell (7),
- a central shell (4);
- a rear end (5),
- said front end (6), said central shell (5) and said rear end (5) forming said second chamber (bottom of Fig. 1); and
- a rear collar (Fig. 1),

Modified Tribioli et al. does not explicitly disclose:

- said front collar and said front end forming said third chamber;

Charlot et al. discloses an electrical propulsion cell (3) housed in a sealed cell body (1) comprised of a front collar (Fig. 1) and a front end (2b) forming a third chamber (Fig. 1) and a rear end (2b) and a rear collar (Fig. 1) forming a first chamber (Fig. 1) to separate the auxiliary cell and the propulsion mechanism (P3/L39-43) from the activation electrolyte (P3/L45-51) to prevent degradation of the auxiliary cell and propulsion mechanism from the electrolyte (P3/L39-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make sealed cell body of modified Tribioli et al. using the first chamber of Charlot et al. to separate the auxiliary cell and propulsion mechanism from the activation electrolyte to prevent degradation of the auxiliary cell and propulsion mechanism from the electrolyte

Modified Tribioli et al. does not explicitly disclose:

- said rear end and said rear collar forming said first chamber.

Leben et al. discloses a third chamber (32) formed from a front collar (1) and front end (35) to allow for removal of used electrolyte while maintaining the operation of the cell (C3/L46-

59) to allow the electrolyte to be replenished during operation of the cell to provide a higher output from the battery (C3/L46-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make sealed cell body of modified Tribioli et al. using the third chamber of Leben et al. to allow for the removal of used electrolyte while maintaining the operation of the cell to allow the electrolyte to be replenished during operation of the cell to provide a higher output from the battery.

Regarding claim 17, modified Tribioli et al. discloses all claim limitations set forth above and further discloses:

- wherein the front collar (top of Fig. 1), the central shell (4) and the rear collar (bottom of Fig. 1) have a substantially cylindrical cross-section of revolution (C2/L58-60).

Regarding claim 18, modified Tribioli et al. discloses all claim limitations set forth above and further discloses:

- wherein the front collar (top of Fig. 1) and the rear collar (bottom of Fig. 1) have a distal end which is open with respect to the front end (6) and the rear end (5),
- in order to construct said electrical propulsion cell (1) in the form of an independent module (3) which can be stored as a substantially inert component (C2/L61-67) with its charge of anhydrous sodium hydroxide reserve (A) when the electrical propulsion cell is not mounted with the device (2),
- in the form of an element integrated directly (Fig. 1) in the body of the device (2),
- the distal end of said front collar (top of Fig. 1) being secured mechanically and coupled electrically (Fig. 1) to an active portion of the device (2) and

- the distal end of the rear collar (bottom of Fig. 1) being secured mechanically and coupled electrically (C5/L9-16) to the propulsive and control rear portion of the device (2)
- in order to constitute an electrical propulsion cell (1) which can be activated as soon as the device (2) is launched (C8/L21-21).

Regarding claim 19, modified Tribioli et al. discloses all claim limitations set forth above and further discloses the of an electrical cell (1) according to claim 1 for the propulsion of a device (2) in an aquatic medium:

- in combination with one of the following movable devices a for such as a **torpedo**, a reconnaissance submarine or a surface device (C2/L55-57).
- said electrical cell providing the supply of power to, the propulsion and the control of said movable device (C2/L55-57),

Regarding claim 20, modified Tribioli et al. discloses all claim limitations set forth above and further discloses an electrical cell:

- wherein said main electrical cell (7) of the electrochemical type is an AgO-Al cell (C2/L61-67).

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tribioli et al. (U.S. 5,506,065) in view of Charlot et al. (EP 0307292, see machine translation), Leben et al. (U.S. 4,752,542) and Guy (U.S. 3,394,034) as applied to claim 1 above, and further in view of McDermott (US 2003/0228516).

Regarding claim 3, modified Tribioli et al. discloses all claim limitations set forth above, but does not explicitly disclose an electrical cell:

- characterized in that said auxiliary electrical cell is formed by a set of thermal cell elements started up by pyrotechnic ignition.

McDermott discloses an auxiliary electrical cell (see reserve battery, [0009]) formed by a set of thermal cell elements (see thermal battery, [0009]) started up by pyrotechnic ignition [0009] to provide heavy current needed for launching [0012]. Tribioli et al. and McDermott are analogous art because they are directed to the powering of devices during their launch. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the electrical propulsion cell of modified Tribioli et al. using the auxiliary electrical cell of McDermott to provide heavy current needed for launching.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tribioli et al. (U.S. 5,506,065) in view of Charlot et al. (EP 0307292, see machine translation), Leben et al. (U.S. 4,752,542) and Guy (U.S. 3,394,034) as applied to claim 8 above, and further in view of Tucker et al. (U.S. 5,733,679).

Regarding claim 9, modified Tribioli et al. discloses all claim limitations set forth above and further discloses an electrical cell:

- wherein said anhydrous sodium hydroxide reserve (A) charged in bulk into said second chamber forming a reservoir (8, C2/L61-67, Fig. 1).

Modified Tribioli et al. does not explicitly disclose:

- said anhydrous sodium hydroxide reserve is constituted by a mixture of micropellets of anhydrous sodium hydroxide and powder-form stannates

Tucker et al. discloses, in an AgO-Al battery (see aluminum-silver oxide battery, C2/L11-27) to power underwater vehicles (C1/L46-55) a reserve (12) constituted by a mixture of micropellets of anhydrous sodium hydroxide (C1/L46-55) and powder-form stannates (see sodium stannate, C2/L11-27) to inhibit corrosion of the aluminum anode (C2/L24-27). Tribioli et al. and Tucker et al. are analogous art because they are directed to the powering of underwater vehicles using AgO-Al batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the electrical propulsion cell of modified Tribioli et al. using the stannate additive of Tucker et al. in the anhydrous sodium hydroxide reserve to prevent corrosion of the aluminum anode.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tribioli et al. (U.S. 5,506,065) in view of Charlot et al. (EP 0307292, see machine translation), Leben et al. (U.S. 4,752,542) and Guy (U.S. 3,394,034) as applied to claim 10 above, and further in view of DiFrancesco et al. (U.S. 5,199,487).

Regarding claim 11, modified Tribioli et al. discloses all claim limitations set forth above and further discloses and electrical cell:

- a portion (11) at least of said central shell (4) which is located in the vicinity of said main electrical cell (7, Fig. 1) constituting a heat exchanger (11) with said aquatic medium (C3/L44-62), to form a heat exchanger (11) for at least a derivative flow of activation electrolyte (C3/L44-62).

Modified Tribioli et al. does not explicitly disclose:

- wherein said central shell at least is constituted by a metal alloy which conducts heat,

DiFrancesco et al. discloses a heat exchanger (abstract) composed of a metal alloy (see aluminum, C4/L13-16) to decrease the weight of the device to allow for longer use or faster deployment of the device (C2/L11-14). Tribioli et al. and DiFrancesco et al. are analogous art because they are directed to torpedo devices. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the electrical propulsion cell of modified Tribioli et al. using the metal alloy of DiFrancesco et al. to decrease the weight of the device to allow for longer use or faster deployment of the device.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tribioli et al. (U.S. 5,506,065) in view of Charlot et al. (EP 0307292, see machine translation), Leben et al. (U.S. 4,752,542) and Guy (U.S. 3,394,034) as applied to claim 10 above, and further in view of Rigo et al. (U.S. 4,108,736).

Regarding claim 12, modified Tribioli et al. discloses all claim limitations set forth above, but does not explicitly disclose an electrical cell:

- wherein the front collar, the front end of the electrical cell, the central shell, the rear end of the electrical cell and the rear collar are composed of a metal material,
- the external face thereof which is to be in contact with the aquatic medium being provided with a protective anti-corrosion layer obtained by hard anodic oxidation.

Rigo et al. discloses a surface coating (abstract) with a protective anti-corrosion layer (C2/L16-13) obtained by hard anodic oxidation (abstract) to provide protection to substrates against corrosion (C1/L9-16). Tribioli et al. and Rigo et al. are analogous art because they are directed to metal substrates in corrosive environments. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the electrical propulsion cell of Tribioli et al. using the surface layer of Rigo et al. to provide protection to the substrate against corrosion.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tribioli et al. (U.S. 5,506,065) in view of Charlot et al. (EP 0307292, see machine translation), Leben et al. (U.S. 4,752,542) and Guy (U.S. 3,394,034) as applied to claim 10 above, and further in view of Sunshine et al. (U.S. 6,033,602).

Regarding claim 13, modified Tribioli et al. discloses all claim limitations set forth above, but does not explicitly disclose an electrical cell:

- wherein an internal face of the front end of the electrical cell, of the central shell and of the rear end of the electrical cell constituting said second chamber forming a reservoir comprise a chemical nickel coating for protection against corrosion by the anhydrous sodium hydroxide.

Sunshine et al. discloses a nickel coating (C2/L53-67) used in a sea water activated battery (abstract) to prevent degradation of the internal face of components from the electrolyte (C1/L29-35). Tribioli et al. and Sunshine et al. are analogous art because they are directed to sea water activated batteries. Therefore, it would have been obvious to one of ordinary skill in the

art at the time of the invention to make the electrical propulsion cell of modified Tribioli et al. using the nickel coating of Sunshine et al. to prevent degradation of the internal face of components from the electrolyte.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tribioli et al. (U.S. 5,506,065) in view of Charlot et al. (EP 0307292, see machine translation), Leben et al. (U.S. 4,752,542), Guy (U.S. 3,394,034) and DiFrancesco et al. (U.S. 5,199,487) as applied to claim 11 above, and further in view of Rigo et al. (U.S. 4,108,736).

Regarding claim 14, modified Tribioli et al. discloses all claim limitations set forth above, but does not explicitly disclose an electrical cell:

- wherein an internal face of said central shell, except for the portion forming the heat exchanger, also comprises a thermally insulating coating at the portion forming a reservoir for the activation electrolyte, in order to reduce the cooling of the stored activation electrolyte by heat exchange with the aquatic medium during the cruise phase.

Rigo et al. discloses a surface coating (abstract) with a protective anti-corrosion layer which is highly insulating to provide protection (C2/L16-13) to protect substrates against corrosion (C1/L9-16). Tribioli et al. and Rigo et al. are analogous art because they are directed to metal substrates in corrosive environments. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the electrical propulsion cell of Tribioli et al. using the surface layer of Rigo et al. to provide protection to the substrate against corrosion while providing insulation.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tribioli et al. (U.S. 5,506,065) in view of Charlot et al. (EP 0307292, see machine translation), Leben et al. (U.S. 4,752,542) and Guy (U.S. 3,394,034) as applied to claim 10 above, and further in view of Honer (U.S. 3,966,497).

Regarding claim 15, modified Tribioli et al. discloses all claim limitations set forth above, but does not explicitly disclose an electrical cell:

- wherein said sealed cell body is provided with a double sealing barrier with respect to said aquatic medium:
- a first sealing barrier formed by a seal between the aquatic medium and the first chamber, and the third chamber respectively;
- a second sealing barrier formed by a seal between the first and second chamber and the second and third chamber, respectively.

Honer discloses, in a sea water battery a first and second sealing barrier (12a and 12b, abstract) to reduce the size of the battery and produce a higher energy output per volume (abstract). Tribioli et al. and Honer are analogous art because they are directed to sea water batteries. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the electrical propulsion cell of modified Tribioli et al. using the sealing barriers of Honer to seal the first, second and third chamber to reduce the size of the battery and produce a higher energy output per volume.

10. Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Tribioli et al. (U.S. 5,506,065) in view of Charlot et al. (EP 0307292, see machine translation), Leben et al. (U.S. 4,752,542) and Guy (U.S. 3,394,034) as applied to claim 10 above, and further in view of Desa et al. (U.S. 2003/0179652).

Regarding claim 16, modified Tribioli et al. discloses all claim limitations set forth above as applied to claim 10 above and further discloses an electrical cell:

- a temperature sensor (206) for flow of activation electrolyte (A) entering and leaving the main electrical cell (7), in order to be able to regulate the temperature of the flow of activation electrolyte (E) by means of said thermostatic valve (12, C11/L4-22);
- a plurality of contacts (183, 188, 189), a contact for sealing the valve for the admission of water from the aquatic medium (C3/L12-17), a contact for opening the valve for the admission of water to the sealed cell body (C3/L12-17).

Tribioli et al. does not explicitly disclose:

- a plurality of temperature sensors
- a plurality of sensors for sensing the relative pressure of the activation electrolyte in the second chamber forming a reservoir, of the activation electrolyte at the inlet of the device for the circulation of the activation electrolyte and for the separation of the effluents, said sensors of relative pressure delivering a relative pressure value with respect to the pressure outside the sealed cell body;

Desa et al. discloses a plurality of temperature and pressure sensors [0026] to provide a device that can be controlled based on environmental conditions [0040]. Tribioli et al. and Desa

et al. are analogous art because they are directed to water-based devices. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the electrical propulsion cell using the plurality of temperature and pressure sensors to Desa et al. o provide a device that can be controlled based on environmental conditions.

Response to Arguments

11. Applicant's arguments with respect to claims 1, 3-20 have been considered but are moot in view of the new ground(s) of rejection necessitated by applicant's amendment.

12. Applicant's arguments filed November 17, 2009 with respect to claim 2 have been fully considered but they are not persuasive.

Regarding applicant's argument that the secondary electrical network is a network used to supply the components (the propulsion motor and son on) of the device itself, it is noted that the features upon which applicant relies (i.e., the secondary electrical network is a network used to supply the components of the device itself) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Claim 2 requires auxiliary and main electrical cells are connected respectively to a main and secondary electrical energy distribution network. Tribioli et al. discloses a auxiliary cell (29) connected to an energy distribution network (Fig. 1) and a main cell (7) connected to a separate energy distribution network (Fig. 1). Therefore, Tribioli et al. discloses the limitations of claim 2.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Cullen whose telephone number is 571-270-1251. The examiner can normally be reached on Monday thru Thursday 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on 571-272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. P. C./
Examiner, Art Unit 1795

/Robert Hodge/
Primary Examiner, Art Unit 1795